

Title (en)

CONDENSING, ULTRA-LOW NOX GAS-FIRED HUMIDIFIER

Title (de)

KONDENSIERENDER, MIT ULTRA-NIEDRIGEM NOX-GAS BETRIEBENER LUFTBEFEUCHTER

Title (fr)

HUMIDIFICATEUR À CONDENSATION ALIMENTÉ AU GAZ PRÉSENTANT UNE ÉMISSION ULTRA-FAIBLE DE NOX

Publication

**EP 3740715 A1 20201125 (EN)**

Application

**EP 19741306 A 20190118**

Priority

- US 201862619701 P 20180119
- US 2019014258 W 20190118

Abstract (en)

[origin: US2019226699A1] A gas-fired atmospheric pressure steam humidifier having high efficiency and ultra-low NOx(3) emissions is disclosed. In some examples, the gas-fired humidifier can have an efficiency of greater than 90 percent and a NOx(3) output of less than 20 parts per million (ppm). In one aspect, the humidifier includes a secondary heat exchanger having a first heat exchange section for pre-heating combustion air and a separate second heat exchange section for pre-heating make-up water, wherein the first and second heat exchange sections are in heat transfer communication with exhaust gases generated by the gas-fired burner and combustion blower assembly. In some examples, the first heat exchange section includes orifices for enabling flue gas recirculation.

IPC 8 full level

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CPC (source: EP US)

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Designated extension state (EPC)

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